

REMARKS BY GENERAL NATHAN F. TWINING
CHIEF OF STAFF, UNITED STATES AIR FORCE

I am very pleased to be able to meet with you today. Largely as a result of your committee's program, more than 7 million physically handicapped men and women are now employed throughout our Nation. From a moral viewpoint alone this is a significant achievement. From a practical viewpoint your program is even more impressive. It contributes materially to the productivity of our Nation, and it sets some standards that we might profit by in other fields. Under conditions that existed 10 or 15 years ago this effort to overcome physical limitations might well have been restricted to the special problem of your committee--the physically handicapped.

This problem still exists. But today's developments and the new horizons we foresee in the tomorrow bring wider problems. For example, today's airplane flies faster and higher than ever before. This performance subjects our flyers to new difficulties: greater effects of gravitation, extreme atmosphere pressures and extreme temperatures. We fly under conditions in which no human could survive without elaborate mechanical aids. Without these aids we could not cope with high altitude, supersonic flight. Just as the handicapped are adjusted to the climate of office or industry, so we must equip and train our pilots to overcome their physical limitations in flight.

It would seem that the term "physically handicapped" has lost its former meaning. It has become a relative term. Today, the extent of handicap must be measured in light of the job to be done. This is what we have attempted to do in our Air Force program for employment of the physically handicapped. We apply this measurement to the full range of our activity--from the job of the combat pilot to tasks performed by the clerk at the desk.

I am sure that all of you are familiar with the achievements of Lt. Col. John P. Stapp in the field of aviation medicine research. In a series of recent tests he voluntarily subjected himself to stresses of abrupt deceleration. As a result, we know about human endurance at high speeds and in abrupt stops. We also know what equipment a pilot needs to survive the shock of bailing out in a parachute at speeds of more than 600 miles an hour. As you know, Colonel Stapp has received the Cheney Award for his skillful and courageous action and for his studies to overcome the physical limitations of our air crews.

There are numerous other examples of ingenious methods used to compensate for the job disability of flying personnel. One of these methods about which little has been said is the control system for high speed jet fighters. This device enables the pilot to move the controls without struggling against the pressures of 600 mile an hour airstreams. However, since the pilot has been taught to fly

- 2 -

by the feel of his controls, the system produces artificial pressures on the stick. These pressures vary for all maneuvers and they correspond to the "feel" of slower aircraft which the pilot has learned to fly with a manual control system.

Some other examples of aids to the pilots are the G-suit, the ejection seat and the entire complex of flight instruments which override human judgment as to the speed, position and flight attitude of the plane. The principles applied to this operation are identical to those which govern the employment of the physically handicapped.

We recognize the time, effort and money involved in overcoming human disability is more than compensated by the value of human performance they make possible. The limits to which we have gone in this direction can be indicated by a brief picture of what the oxygen-fed, G-suited, pilot delivers in terms of individual performance. In the cockpit of a jet fighter a pilot has about one hundred controls to operate, 24 instruments to scan, and a dozen indicator or warning lights to watch. He uses electrical and electronic gear that are just as complex as the combined circuits of a whole city power system. From an altitude of more than 45,000 feet he has no visual reference points. The clouds are far below the horizon is an indistinct line. Overhead a dark blue sky obscures almost everything except the glint of sun on metal.

This is a general picture of pilot performance in a job environment where he could not remain conscious for more than 30 seconds without his equipment. It highlights another dividend on the same procedures you apply to the program for employment of the physically handicapped.

The satisfaction of success against odds is a strong factor behind the achievements of our aircrews. I am sure this is equally true of the thousands of Air Force employees who are performing valuable service in spite of physical impairment. Our program to give maximum employment opportunity to handicapped personnel is similar to the actions we take to overcome aircrew disability. The first requirement is to select or create a job in which they can function. The second step is to give them duties that will permit the fullest application of their abilities. We began our concerted effort to recruit physically handicapped civilians in World War II. We are proud of our continuing program. We are especially proud of the public service awards made to Air Force individuals and organizations, in recognition of our work in employing handicapped personnel. We will continue our efforts to find ways of improving our program. We will strive to give this committee renewed assistance. You have our full support.

- 3 -

Today I issued this directive to the Deputy Chief of Staff for Personnel of the United States Air Force:

"This week the President's Committee on Employment of the Physically Handicapped meets in Washington. I am pleased with the Air Force record over the past year. Although we are not the largest service we lead the others in our program. This comparative record is commendable, but we can do better. I want you to review our program, and take steps to improve it during the next year. Our goal should be not just the best program in the armed services. Let us have the best record in the Nation."

The meeting of your Committee here in Washington has served as a reminder to us to rededicate ourselves to the task of employing the physically handicapped. You have served a greater purpose by reminding the Nation of this need, and by results that signal to the world the greatness of a free society.

In closing, let me emphasize again that it was a pleasure to be here with you today.

Thank you.